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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,167	01/04/2007	James G Moredock	766.42710AX0	1074

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EXAMINER	
MILLER, SAMANTHA A	

ART UNIT	PAPER NUMBER
3749	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,167	MOREDOCK ET AL.	
	Examiner	Art Unit	
	SAMANTHA A. MILLER	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/24/2008;2/7/2008;10/17/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 10/17/2005 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The information disclosure statement (IDS) submitted on 2/7/2007 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The information disclosure statement (IDS) submitted on 4/24/2008 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The detachable fan housing and a detachable filter housing are fully mentioned in claim 2.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. It is unclear if the detachable fan housing and a detachable filter housing mentioned in claim 3 are the same as in claim 2 or a second set of detachable fan housing and detachable filter housing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by MOREDOCK (6,319,304).

MOREDOCK teaches:

1. A flow path extending through the system from an inlet (18) to an outlet (after 37, ex. combustion engine inlet); a motor-driven fan (13) located along the flow path to draw particulate debris laden air into the inlet and rotate it about an axis to form a rotating flow that stratifies the debris laden air with the heaviest particles in the outermost orbits (of 16) of the rotating flow (col.3 l.62-col.4 l.4); an ejector port (32) for ejecting particulate debris laden air from the stratified rotating flow in the system; an air filter (37, col.4 ll.42-46) located within the rotating flow and across the flow path upstream of the outlet for filtering air from the innermost orbits (in 31) of the stratified rotating flow; wherein the system includes at least one component (19) defining a

portion of the flow path through the system, which component is separable from the system (showed detached in Fig.8).

2. The at least one component is selected from the group consisting of a detachable fan housing (19) containing the motor-driven fan (13) and a detachable filter housing (38) containing the air filter (37).

3. A detachable fan housing (19) and a detachable filter housing (38).

4. The fan housing (19) and the filter housing (38) are detachably connected to each other (Fig.1A and Fig.8 shows them connected and detached).

5. An intermediate pipe assembly (21) forming a portion of the flow path, the fan housing and the filter housing being detachably connected to respective ends of the intermediate pipe assembly (Fig.1A).

6. A compression assembly (27) located in the filter housing upstream of the air filter for compressing the volume of the rotating flow of debris laden air (to space 31) to increase the air velocity and centrifugal force acting on the airborne particles.

7. The compression assembly provides support for an upstream end of the air filter (Fig.1A).

8. The compression assembly includes a plurality of stationary vanes (30) in the flow path (Fig.1B).

9. A compression assembly located in the fan housing for compressing the volume of the rotating flow of debris laden air to increase the air velocity and centrifugal force acting on the airborne particles (col.4 ll.19-36).

10. The compression assembly provides support for the motor-driven fan (Fig.1A).

11. The compression assembly includes a plurality of stationary vanes (30) in the flow path (Fig.1B).

12. A separator-ejector chamber (chambers of 21, 27, and 38) in the flow path downstream of the motor-driven fan, the outermost orbits of the rotating flow riding on an outer wall of the separator-ejector chamber to the ejector port (col.4 ll.19-36).

13. The filter (37) is located centrally within the separator-ejector chamber (being in 38) and is elongated in the direction of the axis about which the debris laden air is rotated (Fig.1A).

14. The at least one component which is separable from the system includes a filter housing (21, 27, and 38) detachably connected to the system, the filter housing containing the separator-ejector chamber (21), air filter (37) and the ejector port (32).

15. An outer peripheral surface of the elongated filter is cylindrical (to fit over assembly shown in figure 1B).

Regarding claims 16-21; refer to the rejection of claims 1-15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOREDOCK (6,319,304) in vie of PETERSEN (4,048,911).

MOREDOCK teaches:

22. A powered air cleaning system as a plurality of components, each defining a respective portion of a flow path through the system from an inlet (18) to an outlet (after 37, ex. a combustion engine), the components including first and second components, the first component having a motor-driven fan (13) located along the flow path to draw particulate debris laden air into the inlet and rotate it about an axis to form a rotating flow that stratifies the debris laden air with the heaviest particles in the outermost orbits of the rotating flow (col.3 l.62-col.4 l.4);, and the second component having a separator-ejector chamber (21) in the flow path downstream of the motor-driven fan, an air filter (37) located within the separator-ejector chamber and across the flow path upstream of the outlet for filtering air from the innermost orbits (of 31) of the stratified rotating flow (Fig.1A), and an ejector port (32) for ejecting particulate debris laden air from the stratified rotating flow in the system; separately mounting (separated by 12) the first and second components in remote locations in a device to be supplied with clean air.

23. A compression assembly (27) in the second component upstream of the air filter (37) for compressing the volume of the rotating flow of debris laden air to increase the air velocity and centrifugal force acting on the airborne particles (col.4 ll.19-36)..

MOREDOCK teaches the invention above, however MOREDOCK does not teach the interconnecting the flow path through the first and second components with an intermediate pipe assembly with the defined first and second components above.

PETERSEN teaches:

22.Interconnecting the flow path through the first (18) and second (61, 52, and 46) components with an intermediate pipe assembly (39) which forms a portion of the flow path of the system (Fig.3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of MOREDOCK in view of the intermediate pipe of PETERSEN in order to make the assembly longer in order to more efficiently be mounted to an assortment of designs.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samantha A. Miller whose telephone number is 571-272 9967. The examiner can normally be reached on Monday - Thursday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Samantha Miller
Examiner
Art Unit 3749
9/8/2010

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749